

INFORMATION DISCLOSURE CITATION IN AN APPLICATION	Page 148	Docket Number	Application Number
		027966-0311351	10/705,861
		Applicant(s)	
		Randall B. METCALF	
		Filing Date	Group Art Unit
		November 13, 2003	2837

## **U.S. PATENT DOCUMENTS**

*EXAMINER INITIAL	REF	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	A	5,367,506	11/22/1994	Inanaga <i>et al.</i>	369	4	
	B	5,768,393	06/16/1998	Mukojima <i>et al.</i>	381	17	
	C	5,796,843	08/18/1998	Inagawa <i>et al.</i>	381	17	
	D	6,021,205	02/01/2000	Yamada <i>et al.</i>	381	310	
	E	6,356,644	03/12/2002	Pollak	381	371	
	F	6,829,018	12/07/2004	Lin <i>et al.</i>	348	738	
	G	6,925,426	08/02/2005	Hartmann	703	5	
	H	6,990,211	08/12/2005	Parker	381	74	

## FOREIGN PATENT DOCUMENTS

REF	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translations	
						YES	NO

**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**

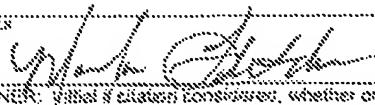
EXAMINER	DATE CONSIDERED
	7/24/06



INFORMATION DISCLOSURE CITATION IN AN APPLICATION				Checklist Number 23435-007-493	Application Number 10705,861		
				Attorney(s) Randall B. METCALF			
				Filing Date November 13, 2003	Group Art Unit 2637		
U.S. PATENT DOCUMENTS							
EXAMINER INITIAL	REF	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	SEARCH DATE & ATTORNEY
	TA	3,158,695	11/24/1964	Carras	389	61	
	18	3,105,685	08/06/1978	Gauldry	179	1	
	3C	3,408,955	11/15/1963	Argo et al.	381	24	
	10	4,422,648	12/20/1983	Edwards	330	102	
	35	4,481,650	11/06/1984	De Konink et al.	381	60	
	45	5,269,470	11/16/1993	De et al.	389	5	
	16	5,452,350	09/18/1995	Yamashita et al.	381	63	
	14	5,740,260	04/14/1998	Odom	381	119	
	8	5,781,645	07/14/1998	Beale	381	182	
	13	5,822,438	10/13/1998	Sekine et al.	381	17	
FOREIGN PATENT DOCUMENTS							
	REF	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translations YES NO
	TK	0 583 276 A	04/20/1994	EUROPE			NO
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)							
	1L	AMATRIAIN et al., "Transmitting Audio Content as Sound Objects", AES 22 <sup>nd</sup> International Conference on Virtual, Synthetic and Entertainment Audio, Music Technology Group, IUA, UPF, Barcelona, Spain, pages 1-11.					
	1M	AMUNDSEN, "The Propagation Matrix Related to the Kirchhoff-Helmholtz Integral in Inverse Wavefield Extrapolation", Geophysics, Volume 59, No. 11, December 1994, pages 1902-1909.					
	1N	AVANZINI et al., "Controlling Material Properties in Physical Models of Scattering Objects", CMC 01-1 Revised Version, pages 1-4					
	1O	BOONE, "Acoustic Rendering with Wave Field Synthesis", Presented at Acoustic Rendering for Virtual Environments, Greenwood, UT, May 26-29, 2001, pages 1-9					
	1P	BUONI, "Discretizing the Wave Equation", In What is and what will be: Integrating Spirituality and Science, Retrieved July 3, 2003, from <a href="http://www.mtnmath.com/mtnth/mtn47.html">http://www.mtnmath.com/mtnth/mtn47.html</a> , 12 pages.					
	1Q	CAMPBELL, et al., "A Parallel 3D Digital Waveguide Mesh Model with Tetrahedral Topology for Room Acoustic Simulation", Proceedings of the COST G-8 Conference on Digital Audio Effects (DAFx-01), Verona, Italy, December 7-9, 2001, pages 1-6.					
	1R	CAULKINNS et al., "Wave Field Synthesis Interaction with the Listening Environment, Improvements in the Reproduction of Virtual Sources Located inside the Listening Room", Proc. of the 8 <sup>th</sup> Int. Conference on Digital Audio Effects (DAFx-03), London, U.K., September 8-11, 2003, pages 1-4.					
	1S	CHOPARD et al., "Wave Propagation in Urban Microscapes: A Massively Parallel Approach Using the TLM Method", Retrieved July 3, 2003, from <a href="http://psi.unic.ch/~luthi/links/tlm.html">http://psi.unic.ch/~luthi/links/tlm.html</a> , 1 page.					
	1T	CORREY et al., "An Integrated Multidimensional Controller of Auditory Perspective in a Multichannel Soundfield", presented at the 111 <sup>th</sup> Convention of the Audio Engineering Society, New York, New York, pages 1-10.					

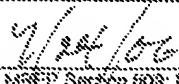
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 608. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.	1/24/06
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INFORMATION DISCLOSURE CITATION IN AN APPLICATION		Patent Number	Application Number					
		23435-007-403	10/765,861					
Form PTO-1648		Applicant	Randall B. METCALF					
		Filing Date	Group Art Unit					
		November 13, 2003	2837					
<b>U.S. PATENT DOCUMENTS</b>								
EXAMINER INITIAL	REF	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	PUBLIC USE P APPROPRIATE	
<b>FOREIGN PATENT DOCUMENTS</b>								
	REF	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES <input type="checkbox"/> NO <input type="checkbox"/>	
<b>OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)</b>								
 	2A	DAVIS, "History of Spatial Coding", Journal of the Audio Engineering Society, Volume 51, No. 6, June 2003, pages 656-669.						
	2B	DE PEYR et al., "Abstract Musical Timbre and Physical Modeling", June 21, 2002, pages 1-31.						
	2C	DE VRIES et al., "Auralization of Sound Fields by Wave Field Synthesis", Laboratory of Acoustic Imaging and Sound Control, pages 1-10.						
		2D	DE VRIES et al., "Wave Field Synthesis and Analysis Using Array Technology", Proc. 1999 IEEE Workshop on Applications of Signal Processing to Audio and Acoustics, New Paltz, New York, Oct. 17-20, 1999, pages 16-18.					
		2E	FARINA et al., "Realisation of 'Virtual' Musical Instruments: Measurements of the Impulse Response of Violins Using MLS Techniques", 9 pages.					
		2F	FARINA et al., "Subjective Comparisons of 'Virtual' Violins Obtained by Convolution", 5 pages.					
		2G	HOLT, "Surround Sound: The Four Reasons", The Absolute Sound, April/May 2002, pages 31-33.					
		2H	HORKACH et al., "Numerical Simulation of Wave Fields Created by Loudspeaker Arrays", Audio Engineering Society 107 <sup>th</sup> Convention, New York, New York, September 1999, pages 1-16.					
		2I	KLEINER et al., "Emerging Technology Trends in the Areas of the Technical Committees of the Audio Engineering Society", Journal of the Audio Engineering Society, Volume 51, No. 5, May 2003, pages 482-491.					
		2J	LANCONE et al., "Issues in Performance Prediction of Surround Systems in Sound Reinforcement Applications", Proceedings of the 2 <sup>nd</sup> COST G-8 Workshop on Digital Audio Effects (DAF-99), NTNU, Trondheim, December 9-11, 1999, 8 pages.					
		2K	LOKKI et al., "The DNA Auralization System", Helsinki University of Technology, pages 1-4.					
		2L	Lyco's Asia Malaysia - Known, printed on December 3, 2001, from <a href="http://lyco.com.my/lyco/known">http://lyco.com.my/lyco/known</a> , 3 pages.					
		2M	MARTIN, "Toward Automatic Sound Source Recognition: Identifying Musical Instruments", presented at the NATO Computational Hearing Advanced Study Institute, # Cilento, Italy, July 1-12, 1996, pages 1-6.					
		2N	MELCHIOR et al., "Authoring System for Wave Field Synthesis Content Production", presented at the 118 <sup>th</sup> Convention of the Audio Engineering Society, New York, New York, October 10-13, 2003, pages 1-10.					
	 <span style="margin-left: 100px;">10/28/2006</span> <span style="margin-left: 100px;">JMB/61</span>							
	<small>EXAMINER: Initial if citation is known. Whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.</small>							

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<b>INFORMATION DISCLOSURE CITATION IN AN APPLICATION</b>  <small>Form PTO-1449</small>		Socket Number	Application Number				
		23435-007-403	10/705,861				
		Applicant(s)					
		Randal S. MCALP					
		Filing Date	Group Art Unit				
		November 13, 2003	2837				
<b>U.S. PATENT DOCUMENTS</b>							
EXAMINER INITIAL	REF	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	TRANSLATE NON-ENGLISH
<b>FOREIGN PATENT DOCUMENTS</b>							
	REF	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translations YES NO
<b>OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)</b>							
	3A	MILLER-DALY, "What You Need to Know About 3D Graphics/Virtual Reality: Augmented Reality Explained", retrieved December 6, 2003, from <a href="http://www3d.about.com/library/weekly/021203a.htm">http://www3d.about.com/library/weekly/021203a.htm</a> , 3 pages.					
	3B	MULLER-TOMFELDE, "Hybrid Sound Reproduction in Audio-Augmented Reality", AES 22 <sup>nd</sup> International Conference on Virtual, Synthetic and Entertainment Audio, pages 1-3.					
	3C	NEUMANN et al., "Augmented Virtual Environments (AVE) for Visualization of Dynamic Imagery", Integrated Media Systems Center, Los Angeles, California, 5 pages.					
	3D	New Media for Music: An Adaptive Response to Technology, Journal of the Audio Engineering Society, Volume 51, No. 8, June 2003, pages 975-977.					
	3E	NICOL et al., "Reproducing 3D Sound for Videoconferencing: a Comparison Between Holography and Ambisonics", France Telecom CNET Lannion, 4 pages.					
	3F	RIEGELSDINGER et al., "Advancing 3D Audio Through an Acoustic Geometry Interface, 6 pages.					
	3G	Shawn of Deaf People Returns to 'Hear' Music", ScienceDaily Magazine, University of Washington, November 28, 2001, 2 pages.					
	3H	SMITH, "Deaf People Can 'Feel' Music: Might Explain How Some Are Able to Become Performers", retrieved December 3, 2001, from <a href="http://www3d.about.com/library/weekly/021203a.htm">http://www3d.about.com/library/weekly/021203a.htm</a> , 1 pages.					
	3I	SONTACCHI et al., "Enhanced 3D Sound Field Synthesis and Reproduction System by Compensating Interfering Reflections", Proceedings of the COST G-8 Conference on Digital Audio Effects (DAFX-00, Verona, Italy, December 7-8, 2000, pages 1-6.					
	3J	SPURKS et al., "High-Quality Acoustic Rendering with Wave Field Synthesis", University of Erlangen-Nuremberg, Erlangen, Germany, November 20-22, 2002, 6 pages.					
	3K	TOMILIE, "Spatial Perception in WFS Rendered Sound Fields", 2 pages.					
	3L	TOMILIE et al., "Potential Wavefield Synthesis Applications in the Multichannel Stereophonic World", AES 24 <sup>th</sup> International Conference on Multichannel Audio, pages 1-13.					
	3M	TOOLE, "Direction and Space, the Final Frontiers: How Many Channels do We Need to be Able to Believe that We are 'There'?", Harman International Industries, Northridge, California, pages 1-30.					
	3N	TOOLE, "Audio-Science in the Service of Art," Harman International Industries, Northridge, California, pages 1-23.					

EXAMINER	DATE CSD-20060606
  <small>EXAMINER initial if citation considered, whether or not citation is in conformance with MPEP Section 608; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant</small>	

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<b>INFORMATION DISCLOSURE CITATION IN AN APPLICATION</b>  <small>Form PTO-1668</small>		Docket Number	Application Number				
		23436-007-403	10/705,881				
		Attorney/Agent					
		Randall B. METCALF					
		First Date	Group Art Unit				
		November 13, 2003	2937				
<b>U.S. PATENT DOCUMENTS</b>							
EXAMINER INITIAL	KEY	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILED DATE IN ART UNIT
<b>FOREIGN PATENT DOCUMENTS</b>							
	KEY	DOCUMENT NO.	DATE	OUNTRY	CLASS	SUBCLASS	Translations YES NO
<b>OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)</b>							
	4A	TSINGOS et al., "Validation of Acoustical Simulations in the 'Bell Labs Box'", Bell Laboratories-Lucent Technologies, 7 pages.					
	4B	University of York Music Technology Research Group, "Surrounded by Sound--A Sonic Revolution", retrieved February 18, 2004, from <a href="http://www.york.ac.uk/~am3/FG3/R2emb.htm">http://www.york.ac.uk/~am3/FG3/R2emb.htm</a> , 7 pages.					
	4C	VAANANEN, "User Interaction and Authoring of 3D Sound Scenes in the Carrouso EU Project", Audio Engineering Society Convention Paper 5784, Presented at the 114 <sup>th</sup> Convention, March 22-26, 2003, pages 1-9.					
	4D	VAANANEN et al., "Encoding and Rendering of Perceptual Sound Scenes in the Carrouso Project", AES 22 <sup>nd</sup> International Conference on Virtual, Synthetic and Entertainment Audio, pages 1-9.					
	4E	"Virtual and Synthetic Audio: The Wonderful World of Sound Objects", Journal of Audio Engineering Society Volume 51, No. 1/2, January/February 2003, pages 93-98.					
	4F	WITTEK, "Optimized Phantom Source Imaging of the High Frequency Content of Virtual Sources in Wave Field Synthesis", A Hybrid WFS/Phantom Source Solution to Avoid Spatial Aliasing, Munich, Germany, Institut für Phantomsynthesen, 2002, pages 1-10.					
	4G	WITTEK, "Perception of Spatially Synthesized Sound Fields", University of Surrey - Institute of Sound Recording, Guildford, Surrey, UK, December 2003, pages 1-3.					
	4H	YOUNG, "Networked Music: Bridging Real and Virtual Space", Peabody Conservatory of Music, Johns Hopkins University, Baltimore, Maryland, 4 pages.					
	4I	"Discretizing of the Huygens Principle", retrieved July 3, 2003, from <a href="http://cse.unice.edu/~luthi/links.htm/node3.htm">http://cse.unice.edu/~luthi/links.htm/node3.htm</a> , 2 pages.					
	4J	"The Dispersion Relation", retrieved May 14, 2004, from <a href="http://cse.unice.edu/~luthi/links.htm/node4.htm">http://cse.unice.edu/~luthi/links.htm/node4.htm</a> , 3 pages.					
EXAMINER		DATE CANNED					
<i>[Signature]</i>		<i>[Signature]</i>					
EXAMINER: I have read or considered, whether or not relevant, whether or not claimed is in conformance with MPEP Section 809. Draw line through claimed if not in conformance and not considered. Include copy of this form with next communication to Applicant.							

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